



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2023-1038; Project Identifier MCAI-2022-01584-T; Amendment 39-22509; AD 2023-14-09]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is superseding Airworthiness Directive (AD) 2022-17-09, which applied to certain Airbus SAS Model A350-941 and -1041 airplanes. AD 2022-17-09 continued to require the actions of AD 2021-16-03 and required a modification to restore two independent layers of lightning strike protection. This AD was prompted by reports of the incorrect application of lightning strike edge glow sealant protection at specific locations on the wing tanks, and a determination that additional airplanes need to perform a modification to restore two independent layers of lightning strike protection on the wing lower or upper cover. This AD continues to require the actions in AD 2022-17-09, and also requires restoring the two independent layers of lightning strike protection; as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:**

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1038; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

*Material Incorporated by Reference:*

- For material incorporated by reference in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); website [easa.europa.eu](https://easa.europa.eu). You may find this material on the EASA website at [ad.easa.europa.eu](https://ad.easa.europa.eu).

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1038.

**FOR FURTHER INFORMATION CONTACT:** Dat Le, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7317; email: [dat.v.le@faa.gov](mailto:dat.v.le@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part

39 to supersede AD 2022-17-09, Amendment 39-22147 (87 FR 64375, October 25, 2022) (AD 2022-17-09). AD 2022-17-09 applied to certain Airbus SAS Model A350-941 and -1041 airplanes. AD 2022-17-09 continued to require the actions of AD 2021-16-03, Amendment 39-21665 (86 FR 47555, August 26, 2021) (an inspection for missing or incorrect application of the lightning strike edge glow sealant protection at certain locations in the wing tanks, and corrective action), and required a modification to restore two independent layers of lightning strike protection. The FAA issued AD 2022-17-09 to address missing or incorrectly applied sealant, which in combination with an undetected incorrect installation of an adjacent fastener and a lightning strike in the immediate area, could result in ignition of the fuel-air mixture inside the affected fuel tanks and loss of the airplane.

The NPRM published in the *Federal Register* on May 15, 2023 (88 FR 30914). The NPRM was prompted by AD 2022-0250, dated December 14, 2022, issued by EASA, which is the Technical Agent for the Member States of the European Union (EASA AD 2022-0250) (also referred to as the MCAI). The MCAI states that occurrences have been reported from the A350 production line of missing or incorrect application of the lightning strike edge glow sealant protection at specific locations on the wing tanks. This sealant provides the second layer of protection to prevent stringer edge glow in case of lightning strike. This condition, if not addressed, combined with a pre-existing undetected incorrect installation of an adjacent fastener, could create an ignition source for the fuel vapor inside the tanks, which, in case of a lightning strike of high intensity in the immediate area, could result in ignition of the fuel-air mixture in the affected fuel tank and consequent loss of the airplane.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1038.

In the NPRM, the FAA proposed to continue to require the actions in AD 2022-

17-09 and require restoring the two independent layers of lightning strike protection, as specified in EASA AD 2022-0250. The FAA is issuing this AD to address the unsafe condition on these products.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA received a comment from Air Line Pilots Association, International (ALPA) who supported the NPRM without change.

### **Conclusion**

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comment received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

### **Related Service Information Under 1 CFR Part 51**

EASA AD 2022-0250 specifies procedures for an inspection for missing or incorrect application of the lightning strike edge glow sealant protection at certain locations in the wing tanks (discrepancies), and corrective action. Corrective actions include applying sealant in areas where sealant was found to be missing or incorrectly applied. EASA AD 2022-0250 also specifies procedures for a modification to restore two independent layers of lightning strike protection on the wing lower or upper cover. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## Costs of Compliance

The FAA estimates that this AD affects 31 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

### Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2022-17-09	Up to 122 work-hours X \$85 per hour = \$10,370	Up to \$500	Up to \$10,870	Up to \$336,970
New actions (modification)	Up to 103 work-hours X \$85 per hour = \$8,775	\$500	Up to \$9,255	Up to \$286,905

The FAA estimates the following costs to do any necessary on-condition action that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need this on-condition action:

### Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
1 work-hour X \$85 per hour = \$85	\$0	\$85

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all known costs in the cost estimate.

## Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2022-17-09, Amendment 39-22147 (87 FR 64375, October 25, 2022); and

b. Adding the following new AD:

**2023-14-09 Airbus SAS:** Amendment 39-22509; Docket No. FAA-2023-1038; Project Identifier MCAI-2022-01584-T.

**(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 2022-17-09, Amendment 39-22147 (87 FR 64375, October 25, 2022) (AD 2022-17-09).

**(c) Applicability**

This AD applies to Airbus SAS Model A350-941 and -1041 airplanes, certificated in any category, as identified in European Union Aviation Safety Agency (EASA) AD 2022-0250, dated December 14, 2022 (EASA AD 2022-0250).

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Unsafe Condition**

This AD was prompted by reports of the incorrect application of lightning strike edge glow sealant protection at specific locations on the wing tanks, and a determination that additional airplanes need to perform a modification to restore two independent layers of lightning strike protection on the wing lower or upper cover. The FAA is issuing this AD to address missing or incorrectly applied sealant, which in combination with an undetected incorrect installation of an adjacent fastener and a lightning strike in the immediate area, could result in ignition of the fuel-air mixture inside the affected fuel tanks and loss of the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2022-0250.

**(h) Exceptions to EASA AD 2022-0250**

(1) Where EASA AD 2022-0250 refers to October 27, 2020 (the effective date of EASA AD 2020-0220), this AD requires using September 30, 2021 (the effective date of AD 2021-16-03, Amendment 39-21665 (86 FR 47555, August 26, 2021)).

(2) Where EASA AD 2022-0250 refers to February 4, 2022 (the effective date of EASA AD 2022-0011), this AD requires using November 29, 2022 (the effective date of AD 2022-17-09).

(3) Where EASA AD 2022-0250 refers to its effective date, this AD requires using the effective date of this AD.

(4) Where paragraph (1) of EASA AD 2022-0250 gives a compliance time of “the next scheduled maintenance tank entry, or before exceeding 78 months since Airbus date of manufacture, whichever occurs first after 27 October 2020 [the effective date of EASA AD 2020-0220],” for this AD, the compliance time is the later of the times specified in paragraphs (h)(4)(i) and (ii) of this AD.

(i) The next scheduled maintenance tank entry, or before exceeding 78 months since Airbus date of manufacture, whichever occurs first after September 30, 2021 (the effective date of AD 2021-16-03).

(ii) Within 12 months after September 30, 2021 (the effective date of AD 2021-16-03).

(5) Where paragraph (3) of EASA AD 2022-0250 gives a compliance time of “the next scheduled maintenance tank entry, or before exceeding 78 months since Airbus date



of manufacture, whichever occurs first after 04 February 2022 [the effective date of EASA AD 2022-0011],” for this AD, the compliance time is the later of the times specified in paragraphs (h)(5)(i) and (ii) of this AD.

(i) The next scheduled maintenance tank entry, or before exceeding 78 months since Airbus date of manufacture, whichever occurs first after November 29, 2022 (the effective date of AD 2022-17-09).

(ii) Within 12 months after November 29, 2022 (the effective date of AD 2022-17-09).

(6) Where paragraph (3) of EASA AD 2022-0250 refers to “discrepancies,” for this AD, discrepancies include missing or incorrectly applied sealant.

(7) Where paragraph (4) of EASA AD 2022-0250 gives a compliance time of “the next scheduled maintenance tank entry, or before exceeding 78 months since Airbus date of manufacture, whichever occurs first after the effective date of this [EASA] AD,” for this AD, the compliance time is the later of the times specified in paragraphs (h)(7)(i) and (ii) of this AD.

(i) The next scheduled maintenance tank entry, or before exceeding 78 months since Airbus date of manufacture, whichever occurs first after the effective date of this AD.

(ii) Within 2 months after the effective date of this AD.

(8) Where the applicability and group definitions in EASA AD 2022-0250 specify manufacturer serial numbers (MSN) in certain service information, replace the text “the inspection SB” with “Airbus Service Bulletin A350-57-P067, dated September 17, 2020.”

(9) Where the applicability and group definitions in EASA AD 2022-0250 specify MSN in certain service information, replace the text “the modification SB1” with “Airbus Service Bulletin A350-57-P070, Revision 1, dated March 14, 2022.”

(10) Where the applicability and group definitions in EASA AD 2022-0250 specify MSN in certain service information, replace the text “the modification SB2” with “Airbus Service Bulletin A350-57-P072, dated June 24, 2022; Airbus Service Bulletin A350-57-P073, dated June 24, 2022; or Airbus Service Bulletin A350-57-P074, dated June 24, 2022; as applicable.”

(11) This AD does not adopt the “Remarks” section of EASA AD 2022-0250.

**(i) Additional AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS’s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (i)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not

identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(j) Additional Information**

For more information about this AD, contact Dat Le, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: 516-228-7317; email: [dat.v.le@faa.gov](mailto:dat.v.le@faa.gov).

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0250, dated December 14, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0250, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); website [easa.europa.eu](http://easa.europa.eu). You may find this EASA AD on the EASA website at [ad.easa.europa.eu](http://ad.easa.europa.eu).

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on July 13, 2023.

Victor Wicklund, Deputy Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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